

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13

ring bonds :

1-2 1-6 2-3 2-7 3-4 3-10 4-5 4-13 5-6 7-8 8-9 9-10 10-11
11-12 12-13

exact/norm bonds :

1-2 1-6 2-3 2-7 3-4 3-10 4-5 4-13 5-6 7-8 8-9 9-10 10-11
11-12 12-13

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:Atom 11:Atom 12:Atom 13:Atom

10/016,694

=> d his

(FILE 'HOME' ENTERED AT 17:45:53 ON 12 SEP 2003)

FILE 'REGISTRY' ENTERED AT 17:45:58 ON 12 SEP 2003

L1 STRUCTURE UPLOADED

L2 QUE L1

L3 0 S L2

L4 3 S L2 SSS FUL

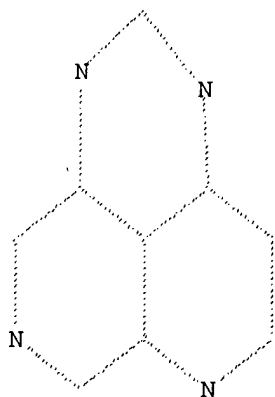
FILE 'CAPLUS' ENTERED AT 17:46:57 ON 12 SEP 2003

L5 1 S L4

=> d 12

L2 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

L2 QUE ABB=ON PLU=ON L1

=> d ibib abs hitstr

10/016,694

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:391714 CAPLUS

DOCUMENT NUMBER: 136:386132

TITLE: Preparation of fused pyrimidonaphthyridines and pyrimidinoquinolines as CRF receptor antagonists

INVENTOR(S): Haddach, Mustapha; Lanier, Marion C.; Huang, Charles Q.; McCarthy, James R.

PATENT ASSIGNEE(S): Neurocrine Biosciences, Inc., USA

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

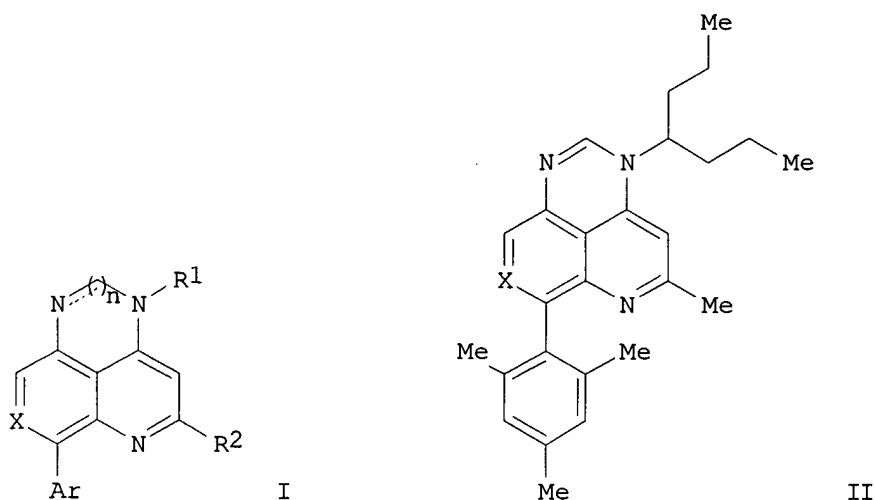
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-------------------|----------|
| WO 2002040480 | A2 | 20020523 | WO 2001-US47919 | 20011102 |
| WO 2002040480 | A3 | 20030515 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| AU 2002039589 | A5 | 20020527 | AU 2002-39589 | 20011102 |
| US 2002151557 | A1 | 20021017 | US 2001-16694 | 20011102 |
| EP 1341793 | A2 | 20030910 | EP 2001-987366 | 20011102 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| NO 2003001997 | A | 20030502 | NO 2003-1997 | 20030502 |
| PRIORITY APPLN. INFO.: | | | US 2000-245821P P | 20001103 |
| | | | WO 2001-US47919 W | 20011102 |

OTHER SOURCE(S): MARPAT 136:386132

GI



AB Title compds. I [X = N, CR₃; R₁ = CHR₄R₅; R₂ = alkyl; R₃ H, alkyl; R₄ = H, alkyl, mono- or di(cycloalkyl)methyl, cycloalkyl, alkenyl, hydroxy-alkyl, alkylcarbonyloxy-alkyl, etc.; R₅ = alkyl, mono- or di(cycloalkyl)methyl, Ar₁CH₂, alkenyl, alkyloxy-alkyl, hydroxy-alkyl, thienylmethyl, furanylmethyl, alkylthio-alkyl, etc. or R₄-5 taken together with the carbon atom to which they are bonded form cycloalkyl; Ar = (un)substituted Ph, arom. heterocycle; Ar₁ = (un)substituted Ph, pyridinyl] were prepd. For instance, 3-amino-2-(2,4,6-trimethylphenyl)pyridine (prepn. given) was reacted with Et acetoacetate (m-xylene, pTSA, reflux, -H₂O) to give 4-hydroxy-2-methyl-8-(2,4,6-trimethylphenyl)-1,7-naphthyridine. This intermediate was converted to the chloride (POCl₃) and nitrated (5-position, HNO₃, H₂SO₄) and the product reacted with 4-heptylamine and subsequently reduced (MeOH, H₂-Pd/C, 35 psi) to afford 4-(heptan-4-ylamino)-2-methyl-5-amino-8-(2,4,6-trimethylphenyl)-1,7-naphthyridine. Treatment of this with triethylorthoformate (reflux, 16 h) afforded II. CRF receptor antagonists of this invention had K_i < 10 μ M. I are useful in the treatment of a variety of disorders, including disorders manifesting hypersecretion of CRF in a warm-blooded animals, such as stroke.

IT 428500-28-1P 428500-29-2P

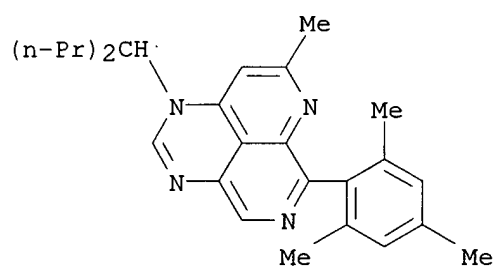
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug; prepn. of fused pyrimidonaphthyridines and pyrimidinoquinolines as CRF receptor antagonists)

RN 428500-28-1 CAPLUS

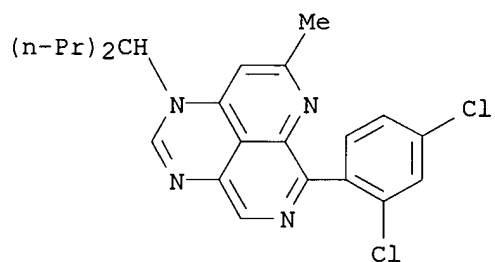
CN 1H-Pyrimido[4,5,6-de][1,7]naphthyridine, 8-methyl-1-(1-propylbutyl)-6-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

10/016,694



RN 428500-29-2 CAPLUS

CN 1H-Pyrimido[4,5,6-de][1,7]naphthyridine, 6-(2,4-dichlorophenyl)-8-methyl-1-(1-propylbutyl)- (9CI) (CA INDEX NAME)



10/016,694

=> d his

(FILE 'HOME' ENTERED AT 17:45:53 ON 12 SEP 2003)

FILE 'REGISTRY' ENTERED AT 17:45:58 ON 12 SEP 2003

L1 STRUCTURE UPLOADED
L2 QUE L1
L3 0 S L2
L4 3 S L2 SSS FUL

FILE 'CAPLUS' ENTERED AT 17:46:57 ON 12 SEP 2003

L5 1 S L4
 SELECT RN L5 1-

FILE 'REGISTRY' ENTERED AT 17:47:50 ON 12 SEP 2003

L6 55 S E1-55
L7 19 S L6 AND NRS=1
L8 36 S L6 NOT L7

FILE 'CAPLUS' ENTERED AT 17:48:37 ON 12 SEP 2003

L9 15263 S L8
L10 ANALYZE L9 1- RN HIT : 36 TERMS

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L11 1 S 9015-71-8
L12 1 S 141-97-9
L13 34 S L8 NOT (L11 OR L12)

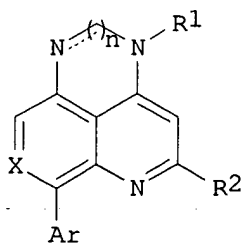
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L14 3 S L13
L15 3 S L5 OR L14

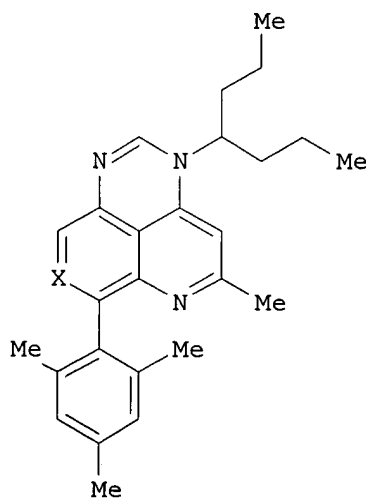
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L15 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:391714 CAPLUS
 DN 136:386132
 TI Preparation of fused pyrimidonaphthyridines and pyrimidinoquinolines as
 CRF receptor antagonists
 IN Haddach, Mustapha; Lanier, Marion C.; Huang, Charles Q.; McCarthy, James
 R.
 PA Neurocrine Biosciences, Inc., USA
 SO PCT Int. Appl., 33 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|--|-----------------|----------|
| PI | WO 2002040480 | A2 | 20020523 | WO 2001-US47919 | 20011102 |
| | WO 2002040480 | A3 | 20030515 | | |
| | W: | | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | |
| | RW: | | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | |
| | AU 2002039589 | A5 | 20020527 | AU 2002-39589 | 20011102 |
| | US 2002151557 | A1 | 20021017 | US 2001-16694 | 20011102 |
| | EP 1341793 | A2 | 20030910 | EP 2001-987366 | 20011102 |
| | R: | | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | |
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| PRAI | US 2000-245821P | P | 20001103 | | |
| | WO 2001-US47919 | W | 20011102 | | |
| OS | MARPAT 136:386132 | | | | |
| GI | | | | | |



I



II

AB Title compds. I [X = N, CR₃; R₁ = CHR₄R₅; R₂ = alkyl; R₃ H, alkyl; R₄ = H, alkyl, mono- or di(cycloalkyl)methyl, cycloalkyl, alkenyl, hydroxy-alkyl, alkylcarbonyloxy-alkyl, etc.; R₅ = alkyl, mono- or di(cycloalkyl)methyl, Ar₁CH₂, alkenyl, alkyloxy-alkyl, hydroxy-alkyl, thienylmethyl, furanylmethyl, alkylthio-alkyl, etc. or R₄-5 taken together with the carbon atom to which they are bonded form cycloalkyl; Ar = (un)substituted Ph, arom. heterocycle; Ar₁ = (un)substituted Ph, pyridinyl] were prepd. For instance, 3-amino-2-(2,4,6-trimethylphenyl)pyridine (prepn. given) was reacted with Et acetoacetate (m-xylene, pTSA, reflux, -H₂O) to give 4-hydroxy-2-methyl-8-(2,4,6-trimethylphenyl)-1,7-naphthyridine. This intermediate was converted to the chloride (POCl₃) and nitrated (5-position, HNO₃, H₂SO₄) and the product reacted with 4-heptylamine and subsequently reduced (MeOH, H₂-Pd/C, 35 psi) to afford 4-(heptan-4-ylamino)-2-methyl-5-amino-8-(2,4,6-trimethylphenyl)-1,7-naphthyridine. Treatment of this with triethylorthoformate (reflux, 16 h) afforded II. CRF receptor antagonists of this invention had K_i < 10 μ M. I are useful in the treatment of a variety of disorders, including disorders manifesting hypersecretion of CRF in a warm-blooded animals, such as stroke.

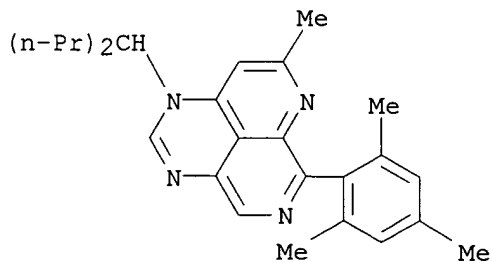
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 428500-46-3P 428500-47-4P 428500-48-5P
 428500-49-6P 428500-50-9P 428520-25-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug; prepn. of fused pyrimidonaphthyridines and pyrimidinoquinolines as CRF receptor antagonists)

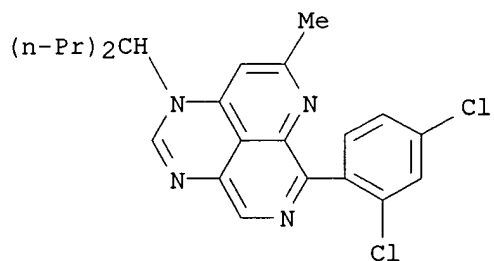
RN 428500-28-1 CAPLUS

CN 1H-Pyrimido[4,5,6-de][1,7]naphthyridine, 8-methyl-1-(1-propylbutyl)-6-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



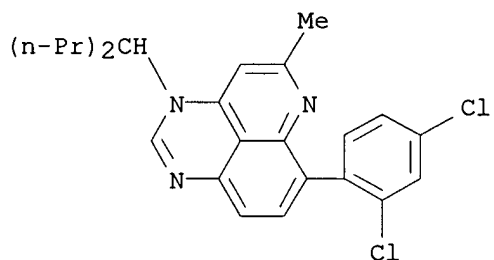
RN 428500-29-2 CAPLUS

CN 1H-Pyrimido[4,5,6-de][1,7]naphthyridine, 6-(2,4-dichlorophenyl)-8-methyl-1-(1-propylbutyl)- (9CI) (CA INDEX NAME)



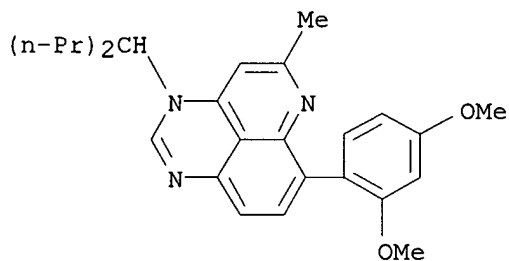
RN 428500-30-5 CAPLUS

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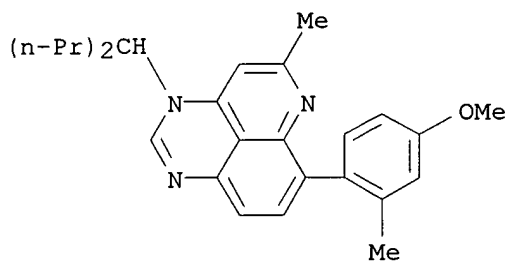
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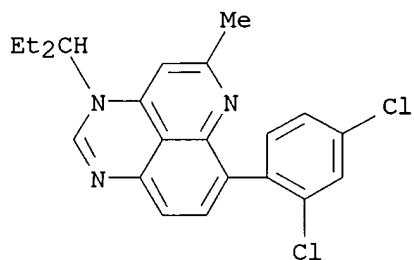


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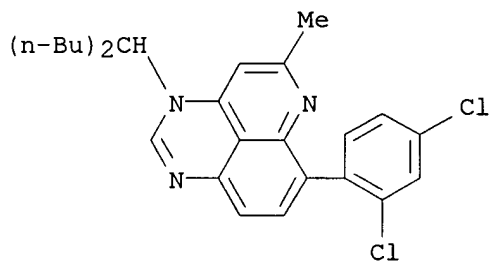
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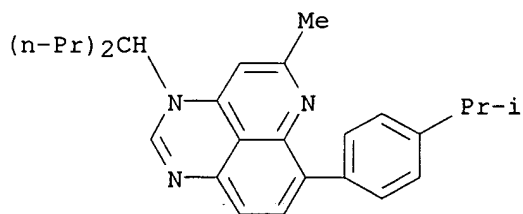
RN 428500-33-8 CAPLUS
 CN 3H-Pyrido[4,3,2-de]quinazoline, 7-(2,4-dichlorophenyl)-3-(1-ethylpropyl)-5-methyl- (9CI) (CA INDEX NAME)



RN 428500-34-9 CAPLUS
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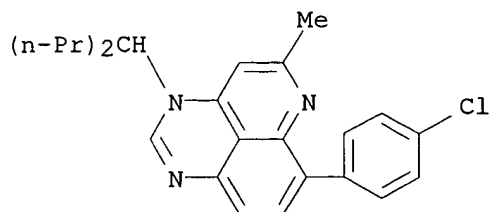
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10/016,694

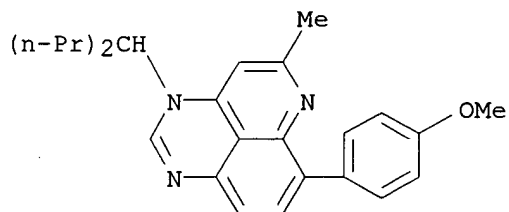
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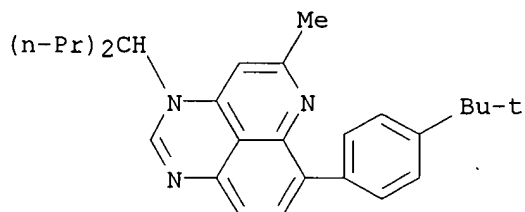
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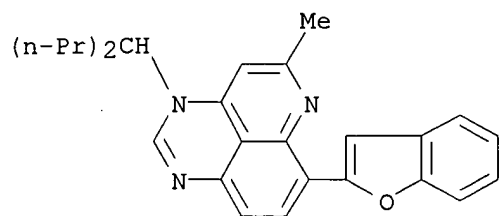
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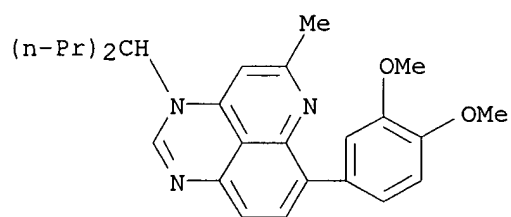


RN 428500-39-4 CAPLUS

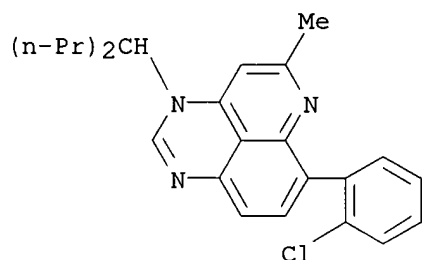
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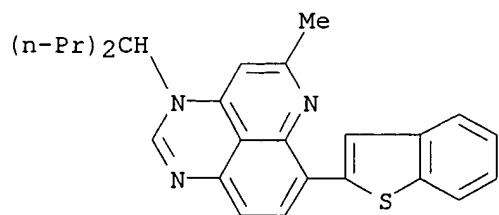
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RN 428500-41-8 CAPLUS
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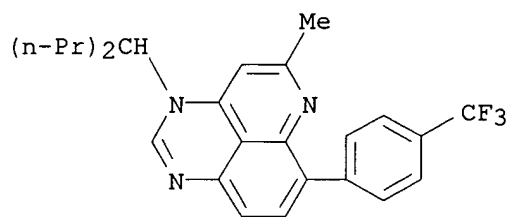
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 CN 3H-Pyrido[4,3,2-de]quinazoline, 7-benzo[b]thien-2-yl-5-methyl-3-(1-propylbutyl)- (9CI) (CA INDEX NAME)



RN 428500-43-0 CAPLUS

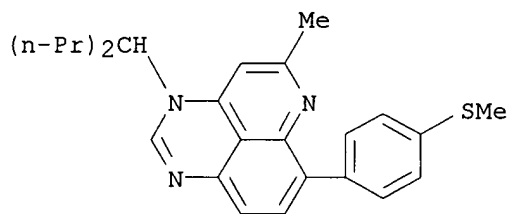
10/016,694

CN 3H-Pyrido[4,3,2-de]quinazoline, 5-methyl-3-(1-propylbutyl)-7-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



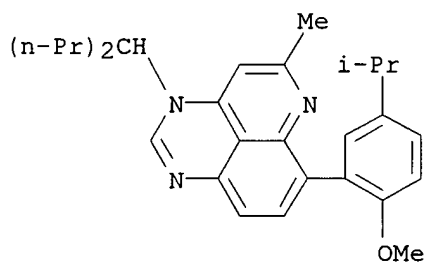
RN 428500-44-1 CAPLUS

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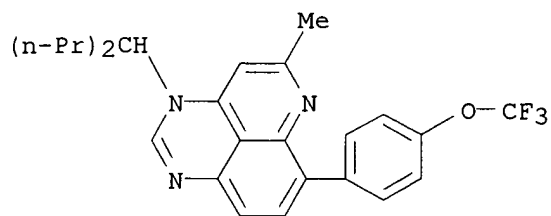
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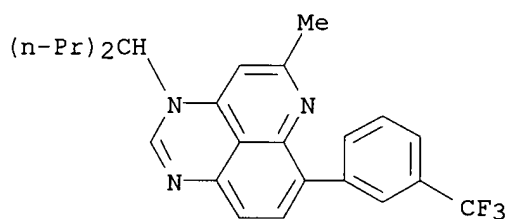
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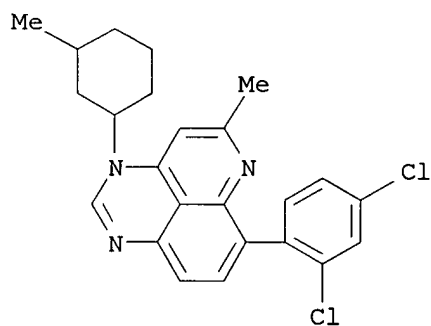
RN 428500-47-4 CAPLUS

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RN 428500-48-5 CAPLUS

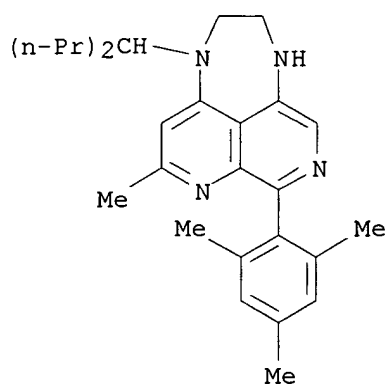
CN 3H-Pyrido[4,3,2-de]quinazoline, 7-(2,4-dichlorophenyl)-5-methyl-3-(3-methylcyclohexyl)- (9CI) (CA INDEX NAME)



RN 428500-49-6 CAPLUS

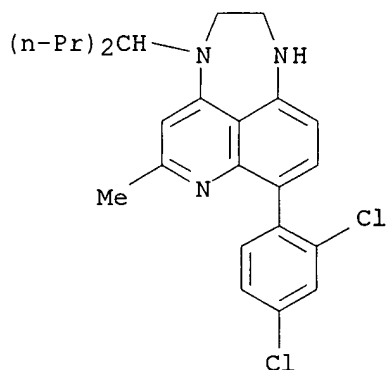
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10/016,694



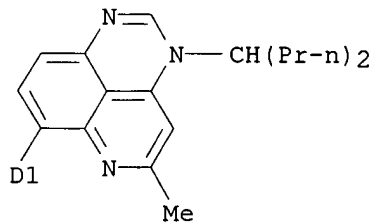
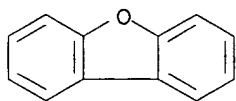
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RN 428520-25-6 CAPLUS

CN 3H-Pyrido[4,3,2-de]quinazoline, 7-(dibenzofuranyl)-5-methyl-3-(1-propylbutyl)- (9CI) (CA INDEX NAME)



IT 212139-12-3P, 4-Chloro-2-methyl-8-(2,4-dichlorophenyl)-1,7-

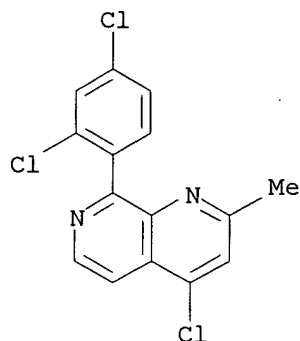
naphthyridine **344293-84-1P**, 3-Amino-2-(2,4,6-trimethylphenyl)pyridine **428500-51-0P**, 3-Amino-2-(2,4-dichlorophenyl)pyridine **428500-52-1P**, 4-Hydroxy-2-methyl-8-(2,4,6-trimethylphenyl)-1,7-naphthyridine **428500-53-2P**, 4-Hydroxy-2-methyl-8-(2,4-dichlorophenyl)-1,7-naphthyridine **428500-54-3P**, 4-Chloro-2-methyl-8-(2,4,6-trimethylphenyl)-1,7-naphthyridine **428500-55-4P**, 4-Chloro-2-methyl-5-nitro-8-(2,4,6-trimethylphenyl)-1,7-naphthyridine **428500-56-5P**, 4-(Heptan-4-ylamino)-2-methyl-5-nitro-8-(2,4,6-trimethylphenyl)-1,7-naphthyridine **428500-57-6P**, 4-(Heptan-4-ylamino)-2-methyl-5-amino-8-(2,4,6-trimethylphenyl)-1,7-naphthyridine **428500-58-7P**, 4-(Heptan-4-ylamino)-2-methyl-5-amino-8-(2,4-dichlorophenyl)-1,7-naphthyridine

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of fused pyrimidonaphthyridines and pyrimidinoquinolines as CRF receptor antagonists)

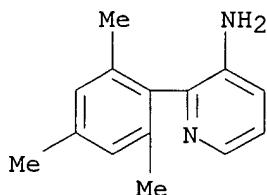
RN 212139-12-3 CAPLUS

CN 1,7-Naphthyridine, 4-chloro-8-(2,4-dichlorophenyl)-2-methyl- (9CI) (CA INDEX NAME)



RN 344293-84-1 CAPLUS

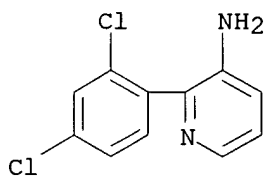
CN 3-Pyridinamine, 2-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



RN 428500-51-0 CAPLUS

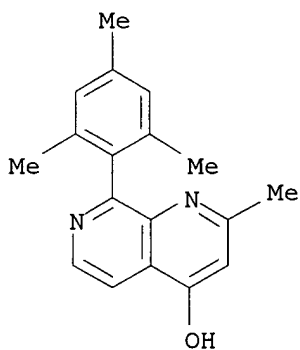
CN 3-Pyridinamine, 2-(2,4-dichlorophenyl)- (9CI) (CA INDEX NAME)

10/016,694



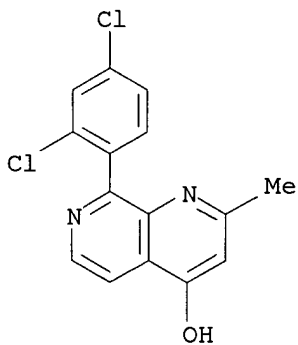
RN 428500-52-1 CAPLUS

CN 1,7-Naphthyridin-4-ol, 2-methyl-8-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



RN 428500-53-2 CAPLUS

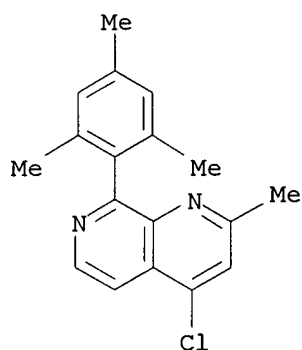
CN 1,7-Naphthyridin-4-ol, 8-(2,4-dichlorophenyl)-2-methyl- (9CI) (CA INDEX NAME)



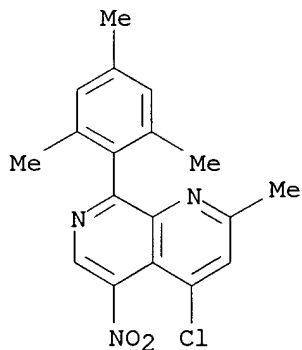
RN 428500-54-3 CAPLUS

CN 1,7-Naphthyridine, 4-chloro-2-methyl-8-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

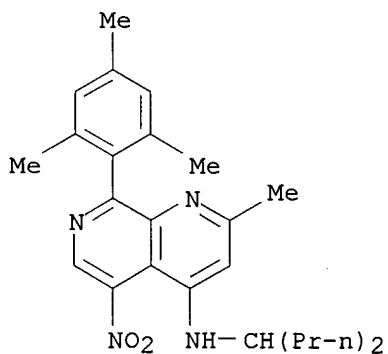
10/016,694



RN 428500-55-4 CAPLUS
CN 1,7-Naphthyridine, 4-chloro-2-methyl-5-nitro-8-(2,4,6-trimethylphenyl)-
(9CI) (CA INDEX NAME)

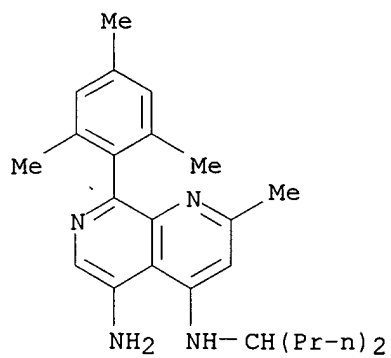


RN 428500-56-5 CAPLUS
CN 1,7-Naphthyridin-4-amine, 2-methyl-5-nitro-N-(1-propylbutyl)-8-(2,4,6-
trimethylphenyl)- (9CI) (CA INDEX NAME)



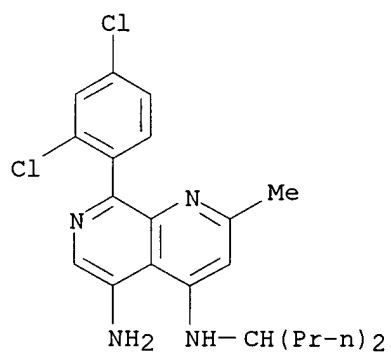
RN 428500-57-6 CAPLUS
CN 1,7-Naphthyridine-4,5-diamine, 2-methyl-N4-(1-propylbutyl)-8-(2,4,6-
trimethylphenyl)- (9CI) (CA INDEX NAME)

10/016,694



RN 428500-58-7 CAPLUS

CN 1,7-Naphthyridine-4,5-diamine, 8-(2,4-dichlorophenyl)-2-methyl-N4-(1-propylbutyl)- (9CI) (CA INDEX NAME)



10/016,694

L15 ~~ANSWER 2 OF 3~~ CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:435078 CAPLUS

DN 135:61346

TI Preparation of fused heterotricyclic compounds as antagonists against corticotropin-releasing factor receptor

IN Hibi, Shigeki; Hoshino, Yoriyoshi; Yoshiuchi, Tatsuya; Shin, Kogyoku; Kikuchi, Kouichi; Soejima, Motohiro; Tabata, Mutsuko; Takahashi, Yoshinori; Shibata, Hisashi; Hida, Takayuki; Hirakawa, Tetsuya; Ino, Mitsuhiro

PA Eisai Co., Ltd., Japan; et al.

SO PCT Int. Appl., 255 pp.

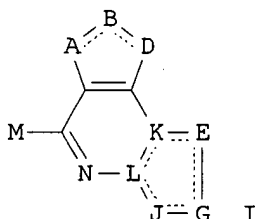
CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2001042247 | A1 | 20010614 | WO 2000-JP8811 | 20001213 |
| | W: AU, BR, CA, CN, HU, IL, KR, MX, NO, NZ, RU, US, ZA | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| | JP 2001233876 | A2 | 20010828 | JP 2000-375811 | 20001211 |
| | AU 2001020235 | A5 | 20010618 | AU 2001-20235 | 20001213 |
| | EP 1238979 | A1 | 20020911 | EP 2000-983479 | 20001213 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| | US 2003078277 | A1 | 20030424 | US 2002-148836 | 20020605 |
| PRAI | JP 1999-352553 | A | 19991213 | | |
| | WO 2000-JP8811 | W | 20001213 | | |
| OS | MARPAT 135:61346 | | | | |
| GI | | | | | |



AB Compds. such as pyrazolo[1,5-a]pyrrolo[3,2-e]pyrimidine, dipyrazolo[1,5-a:4,3-e]pyrimidine, pyrrolo[3,2-c]quinoline, and pyrrolo[3,2-c][1,7]naphthyridine derivs. represented by general formula [I; A, B, D = N, O, S, (CR₁R₂)_m, CO, CS, (un)substituted NH, SO, SO₂ (wherein m = 0-4; R₁, R₂ = H, C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, C1-6 alkoxy, C3-8 cycloalkyl, etc.); E, G = N, O, S, (CR₆R₇)_p, CO, CS, (un)substituted NH, SO, SO₂ (wherein R₆, R₇ = H, C1-6 alkyl, optionally C1-4 alkyl-substituted C3-5 cycloalkyl, optionally substituted aryl, or heteroaryl, etc.; p = 0, 1, 2); K, L = C, N; the ring formed by K, E, G, J, and L represents an (un)satd. 5- or 6-membered ring; M = M = H, halo, cyano, (un)substituted C1-6 alkyl, (un)substituted NH, OR₁₃, S(O)qR₁₄, (un)substituted C2-10 alkenyl or alkynyl, (un)substituted C1-6 alkoxy, C1-6 alkylthio, aryl, or heteroaryl (wherein R₁₃ = H, optionally substituted C1-6 alkyl, C1-4 alkylacyl, optionally substituted aryl-C1-4

alkyl or heteroaryl-C1-4 alkyl, or aryl-heteroaryl; R14 = C1-6 alkyl optionally substituted aryl-C1-4 alkyl, aryl, heteroaryl-C1-4 alkyl, or heteroaryl; q = 0, 1, 2); the solid line accompanied by a dotted line represents a single or a double bond] or pharmacol. acceptable salts thereof or their hydrates, which are also adenylate cyclase inhibitors, are prepd. These compds. are useful for the prevention and/treatment of diseases related to corticotropin-releasing factor (CRF) and/or corticotropin-releasing factor receptor. The above diseases include depression, mania, child abuse due to depression, depression after child birth, anxiety, general anxiety, panic disorders, phobia, obsessive-compulsive disorders, post-traumatic-stress disorder, autism, emotional disorders, emotional disturbance, bipolar disorder, , schizophrenia, peptic ulcer, irritable bowel syndrome, ulcerative colitis, Crohn's disease, diarrhea, constipation, intestinal functional abnormality accompanied by stress, neurol. vomiting, Alzheimer's disease, neurodegenerative disease, multiple infarction dementia, and senile dementia, neurol. appetite depression, eating disorders, obesity, diabetes, alc. dependence, drug preference, alc. or drug withdrawal symptom. They also include insomnia, migraine headache, stress headache, muscular stress headache, ischemic nerve disorders, excitatory toxin nerve disorders, stroke, progressive supranuclear paralysis, amyotrophic lateral sclerosis, multiple sclerosis, muscle spasm, chronic fatigue syndrome, neurol. social growth-retardation, epilepsy, head injury, spinal injury, writer's cramp, torticollis spastica, cervicobrachial syndrome, Meniere's syndrome, vegetative dystonia, hair loss, neuropathy, hypertension, cardiovascular disorders, tachycardia, congestive heart attack, hyperpnea syndrome, bronchial asthma, apnea syndrome, sudden infant death syndrome, inflammatory disorders, pain, allergy, impotence, menopausal syndrome, fertilization disorder, sterility, cancer, immune function disorders during HIV infection or caused by stress, hemorrhagic stress, Cushing's disease, thyroid gland function abnormality, meningitis, acromegaly, incontinence, and osteoporosis, etc. Thus, a soln. of 7-chloro-6-(2-chloroethyl)-3-mesityl-2,5-dimethylpyrazolo[1,5-a]pyrimidine and 3-aminopentane in Me Et ketone was refluxed for 1 h to give, after treatment with HCl in Et₂O, 8-(1-ethylpropyl)-3-mesityl-2,5-dimethyl-7,8-dihydro-6H-pyrazolo[1,5-a]pyrrolo[3,2-e]pyrimidine hydrochloride (II). II showed IC₅₀ of 100 nM for inhibiting the binding of [125I]sauvagine to human CRF receptor expressed in HEK 293 cells and showed IC₅₀ of 900 nM against adenylic acid cyclase.

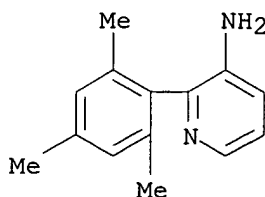
IT **344293-84-1P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of fused heterotricyclic compds. as antagonists against corticotropin-releasing factor receptor for preventives or remedies for CRF and/or CRF receptor-related diseases)

RN 344293-84-1 CAPLUS

CN 3-Pyridinamine, 2-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



10/016,694

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/016,694

~~LI5~~ ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS on STN

~~AN~~ 1998:568830 CAPLUS

DN 129:202953

TI Preparation of bicyclic nitrogen-containing heterocycles as CRF receptor antagonists and methods relating thereto

IN McCarthy, James R.

PA Neurocrine Biosciences, Inc., USA

SO PCT Int. Appl., 62 pp.

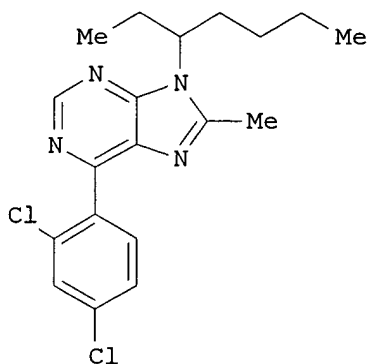
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|--|----------|-----------------|----------|
| PI | WO 9835967 | A2 | 19980820 | WO 1998-US2932 | 19980217 |
| | WO 9835967 | A3 | 19981210 | | |
| | W: | AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | |
| | AU 9862795 | A1 | 19980908 | AU 1998-62795 | 19980217 |
| | EP 970082 | A2 | 20000112 | EP 1998-905094 | 19980217 |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | |
| | JP 2001511813 | T2 | 20010814 | JP 1998-535982 | 19980217 |
| | US 6352990 | B1 | 20020305 | US 1999-415503 | 19991008 |
| | US 2002049207 | A1 | 20020425 | US 2001-995159 | 20011127 |
| PRAI | US 1997-36414P | P | 19970218 | | |
| | US 1997-36415P | P | 19970218 | | |
| | US 1997-36416P | P | 19970218 | | |
| | US 1997-36421P | P | 19970218 | | |
| | US 1997-36422P | P | 19970218 | | |
| | US 1997-36423P | P | 19970218 | | |
| | WO 1998-US2932 | W | 19980217 | | |
| | US 1999-415503 | A3 | 19991008 | | |
| OS | MARPAT 129:202953 | | | | |
| GI | | | | | |



AB A variety of 5/6 and 6/6 bicyclic nitrogen-contg. heterocyclic compds. are disclosed, for use as CRF receptor antagonists. The compds. are useful for treatment of a variety of disorders, including those manifesting hypersecretion of CRF in a warm-blooded animal, such as stroke. The heterocycles include pyrrolopyrimidines, pyrrolotriazines, imidazotriazines, purines, benzimidazoles, imidazopyridines, pyridopyridazines, pyridazinopyrimidines, pyrimidinopyrimidines, and naphthyridines. For instance, Pd(PPh₃)₄-catalyzed coupling of 5-amino-4,6-dichloropyrimidine at its 4-position with 2,4-dichlorobenzeneboronic acid (40%), coupling of the product with 3-aminoheptane at the 6-position, and cyclization of the diamine product with tri-Et orthoacetate, gave the purine deriv. I. The latter had a K_i of 8.8 nM for inhibition of CRF specific binding in vitro.

IT **212139-12-3P**, 2-Methyl-4-chloro-8-(2,4-dichlorophenyl)-1,7-naphthyridine

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of bicyclic nitrogen heterocycles as CRF receptor antagonists)

RN 212139-12-3 CAPLUS

CN 1,7-Naphthyridine, 4-chloro-8-(2,4-dichlorophenyl)-2-methyl- (9CI) (CA INDEX NAME)

